

NORTH ZONE FIRE MANAGEMENT BLACK HILLS NATIONAL FOREST



Bald Carnegie Prescribed Burn (October 2005)



Ricco Fire (July 2005)

PRESCRIBED FIRE INFORMATION GUIDE

PRESCRIBED FIRE: *IMPROVING THE HEALTH OF OUR FORESTED ECOSYSTEM*

Fires burn in forests and rangeland, playing a vital ecological role in keeping land healthy. Fire reduces dead vegetation, replenishes nutrients in the soil, stimulates new growth, and maintains biological diversity. Over time a mix of forest management practices, fire suppression, and recently – drought, has led to overcrowding of vegetation and plants and shrubs that may not be ecologically adapted to live with fire. As a result, our forests are now conducive to large, severe wild land fires. Prescribed burns allow fire managers to reintroduce fire under a more controlled environment, usually in the spring or fall, to lower fire intensities and produce fire effects that are more desirable to land managers and the public. Once completed, the prescribed burn area will also serve to lessen fire intensities from naturally ignited fires such as lightning and provides fire managers more options when suppressing future fires.

In the Black Hills, public land managers have been reducing accumulations of hazardous fuels that lead to large, severe wild land fires through the use of mechanical treatment and prescribed fire. Reducing hazardous fuels through prescribed fire and other tools is a key component of the [National Fire Plan](#). This plan is interagency strategy, developed by the Department of Agriculture and Department of Interior, to respond to severe wild land fires, reduce fire's impacts on rural communities, and to assure sufficient firefighting capacity in the future. The National Fire Plan, as well as other legislation such as the Healthy Forest Restoration Act, provides direction for land managers to reduce fuel concentrations and threats of uncharacteristic wildfires in the Wildland Urban Interface.

The last six years, substantial progress has been made implementing prescribed fire projects and mechanical fuels reduction treatments within the urban interface mix. Mechanical fuels reduction involves removal or shredding of dense stands of trees. The Forest Service will utilize private contractors with machines that use special attachments that fragment the trees and reduce slash accumulations that can lead to more intense fires. Mechanically thinning trees will remove ladder fuels that reach into the canopies of the older trees. Removing ladder



fuels will decrease torching of trees and ultimately crown fires. Mechanical fuels treatments are conducted near private property where prescribed fire may be too risky.

Prescribed fires have proven to be very successful in creating the conditions necessary for healthy forests, but there is troublesome side of smoke. To minimize the impacts of smoke, land managers work closely with the South Dakota and Wyoming Department of Environmental Quality, the National Weather Service, and adjoining ranger districts when implementing prescribed fires.



Before every prescribed fire, burn personnel call the National Weather Service with on-site weather conditions and request a spot weather forecast. This forecast allows fire managers to determine whether they will burn or not based on site specific weather forecasts.

This forecast includes temperatures, relative humidity, winds, and smoke dispersal. Typically, the Forest Service will only burn when the smoke dispersal rating is fair or better. A rating of fair or better allows smoke to rise higher in the atmosphere and allows upper air winds to disperse smoke. Yet even in favorable conditions, the air will still become smoky. Although the air is smoky, it still meets federal and state air quality standards.

Smoke will also be seen this winter when the snow flies. Currently, North Zone Fire Management has several hundred acres of hand and machine piles that will also be burned. Thinning and hand piling is chosen when forest aesthetics is important because fire crews can selectively leave the largest, healthiest trees and pile the downed and dead woody material.



Ladder fuels can make broadcast burning dangerous



Area after selective thinning and piling

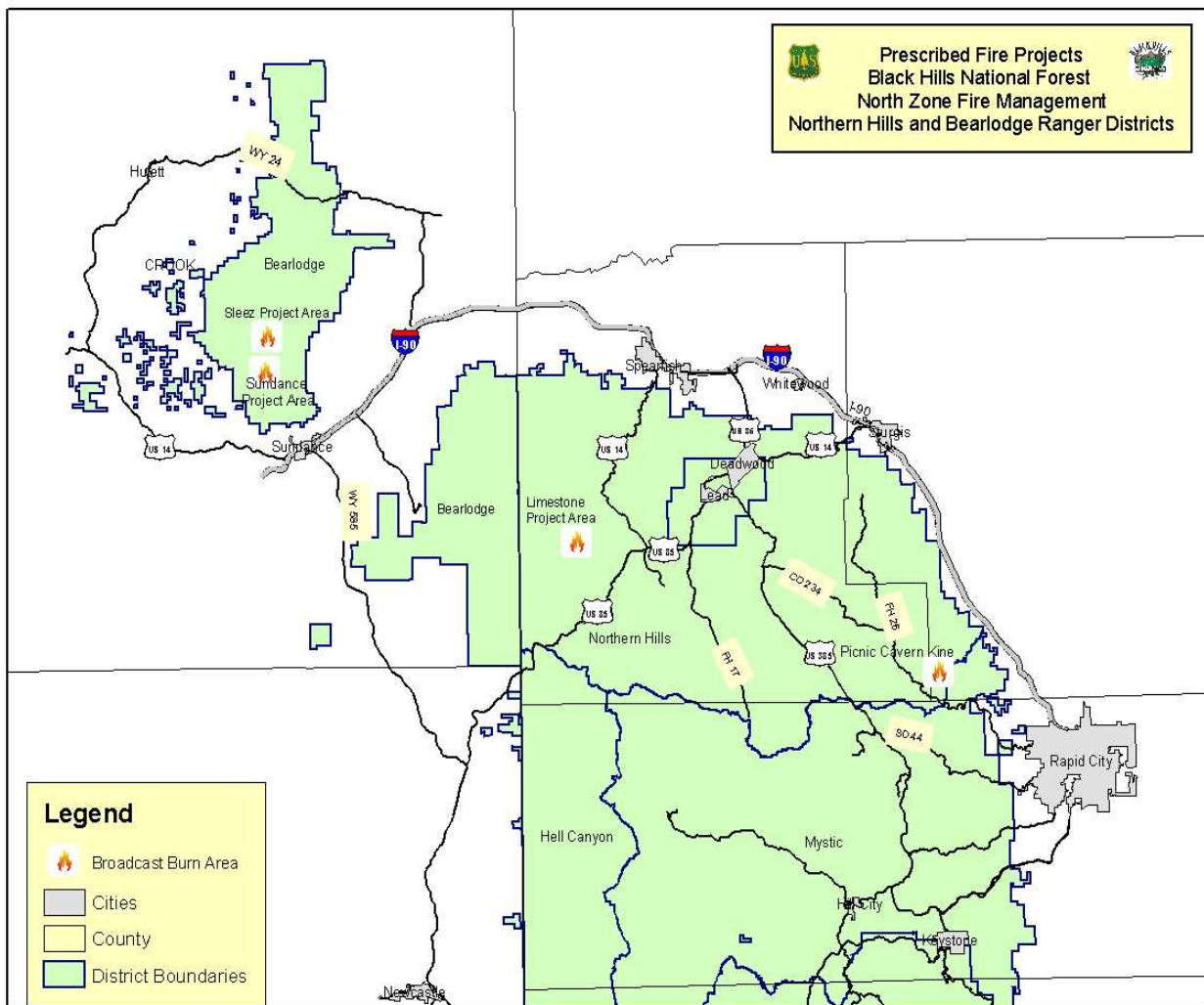
When a natural ignition does occur, this treatment effectively removes ladder fuel, which reduces the chance of trees torching and initiating crown fire. Removing woody debris on the forest floor helps firefighters because it slows fire's rate of spread and reduces the flame length so initial attack forces have increased suppression options (i.e. engines, hand line, dozer line) too safely and effectively manage the incident. Hand piles are typically created near structures where prescribed broadcast burning is too risky.



North Zone Fire Management consists of two ranger districts on the northern tier of the Black Hills National Forest. The Bearlodge Ranger District encompasses much of the Wyoming side of the Black Hills and the Bearlodge Mountains in northwest Crook County Wyoming. The Northern Hills Ranger District follows the Wyoming border to US 85, and then generally follows the Lawrence and Pennington County Lines east to near Interstate 90.

This fall, starting in mid-September, the North Zone of the Black Hills will focus efforts on the Limestone, Picnic/Cavern/Kine, Slez and Sundance Prescribed Broadcast Burns. All four of these areas have been identified and cleared for treatment utilizing direction from the National Fire Plan and focus on treating forested land around the wildland urban interface.

On the Northern Hills Ranger District, smoke from slash pile burning will be seen in the Spearfish Canyon area, Beaver Park fuel breaks along Forest Roads 139 and 169, Crook Mountain south of Whitewood, Lawrence County Road 044 south of Deadwood and east of Highway 385, and near the O'Neil Pass area. The Bearlodge will be burning slash piles in the Snapper Timber Sale in the Blacktail Drainage, Wish Timber Sale near the Black Buttes – east of Highway 585, and just above the Vista West Subdivision near Reuter Campground.





NORTHERN HILLS RANGER DISTRICT: PRESCRIBED FIRE PROJECTS FISCAL YEAR 2008



PROJECT NAME	PLANNED ACRES	TARGET DATE
Limestone Hazardous Fuels	1208	September-November
Picnic Cavern Kine	1300	September-December

Limestone Prescribed Fire

- Information Contact: Brian Rafferty
605/642-4622
- Target Date for Burn: Sep. 15 – Nov. 15
- Location (Legal Description): Prescribed fire will be ignited approximately 10 miles West of Lead (T4N, R1E, S12)
- Project Size: 1208 Acres
- Description: The objective of the project is to provide fire managers safe and effective areas in which to manage wildland fires. The treatments in these units will maintain a forest structure that continues to inhibit the spread of wildland fire to the crowns of trees. Surface fire provides managers different options when a fire starts in a given area. Mechanical treatments in the project area have also provided fuel breaks that suppression personnel can use to manage unwanted wildland fire.

Picnic Cavern Kine Prescribed Fire

- Information Contact: Brian Rafferty
605/642-4622
- Target Date for Burn: Sep. 15 – Dec. 15
or Mar. 1 – April 30.
- Location and Legal Description: Prescribed fire will be ignited approximately 3 miles northeast of Steamboat Rock Picnic Ground (T3N, R6E)
- Project Size: 1300
- Description: The objective of this burn is to reduce natural and activity created fuels near wildland urban interface. The treatments in these units will maintain a forest structure that continues to inhibit the spread of wildland fire to the crowns of trees. Surface fire provides managers different options when a fire starts in a given area. The burn will also recycle necessary nutrients to the soil that will provide additional browse and forbs for wildlife species and create a proper seedbed for pine regeneration.



BEARLODGE RANGER DISTRICT: PRESCRIBED FIRE PROJECTS FISCAL YEAR 2008



PROJECT NAME	PLANNED ACRES	TARGET DATE
Sundance Hazardous Fuels	1359	October-November
Sleez Prescribed Fire	1330	September-November

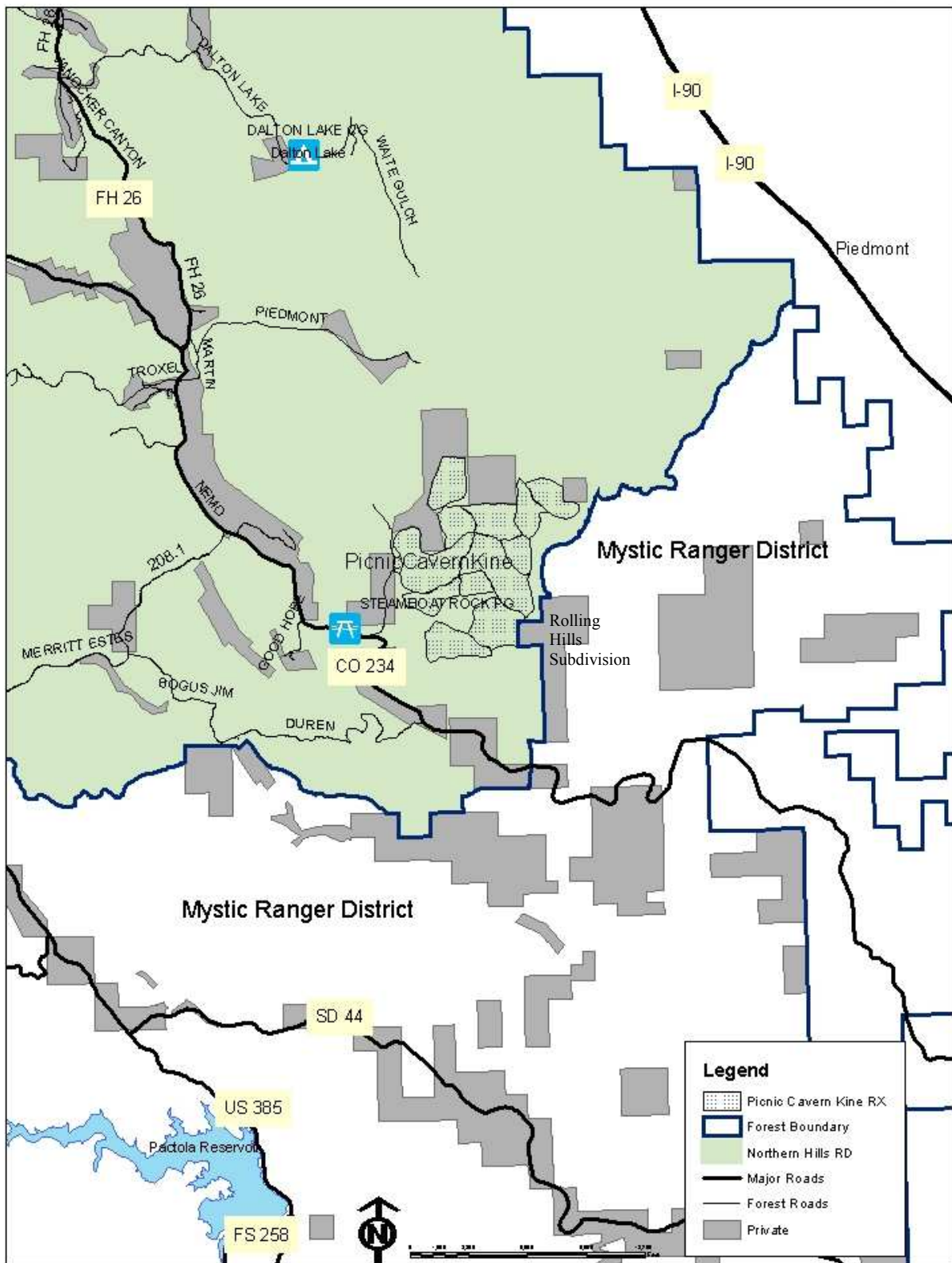
SUNDANCE HAZARDOUS FUELS

- Information Contact: Dennis Mauch
307/283-1361
- Target Date for Burn: Oct. 15-Nov. 15
- Location: The general project vicinity is located in Crook County, 3 to 8 miles Northwest of Sundance, WY. The Sundance Hazardous Fuels Reduction Plan has multiple units identified for Prescribed Fire. All units can be accessed off of Warren Peak highway and travel maps will be made available to all resources assigned and/or committed to the project. (T51N, R63W, S20)
- Project Size: 1359 Acres
- Description: The primary objective of this burn is to begin reducing the continuity of live, dead, standing and downed hazardous fuels in the treatment areas. Burn units will help to protect nearby private property and homes, and to aid fire suppression tactics and strategies in the event of an ignition (unplanned or unwanted wildland fire) while restoring and/or maintaining the hardwood component.

SLEEZ PRESCRIBED FIRE

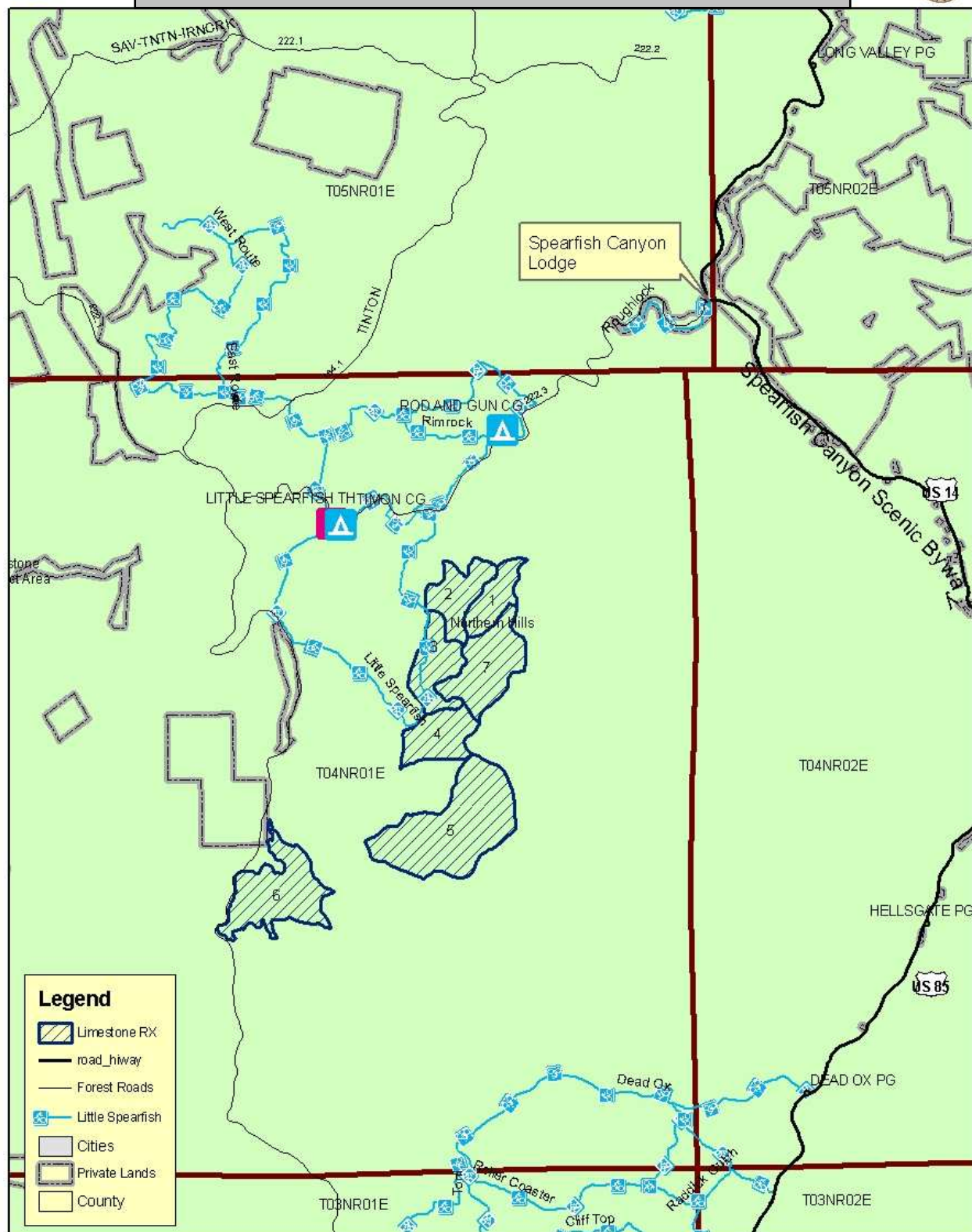
- Information Contact: Scott Wheeler or Rochelle Plocek
307/283-1631
- Target Date for Burn: Sep. 15-Nov. 15
- Location: The general project vicinity is located in Crook County, 7 to 9 miles Northwest of Sundance, WY. Treatments are adjacent to Sundance Prescribe Fire project and are located in the Whitelaw and Beaver Creek drainages in the Bearlodge Mountains. Access to the burn is from the Warren Peak highway to Forest Roads 851 and 841. (T52N, R63W, S8 or 9)
- Project Size: 1330 Acres
- Description: Prescribed fire treatments were selected to reduce current fuel loadings in the Whitelaw and Beaver Creek drainages so that future fires burn with less intensity and severity. Areas of private property will also benefit from prescribed fire activities. The burn will also facilitate browse and forb production to enhance habitat diversity which will help wildlife.

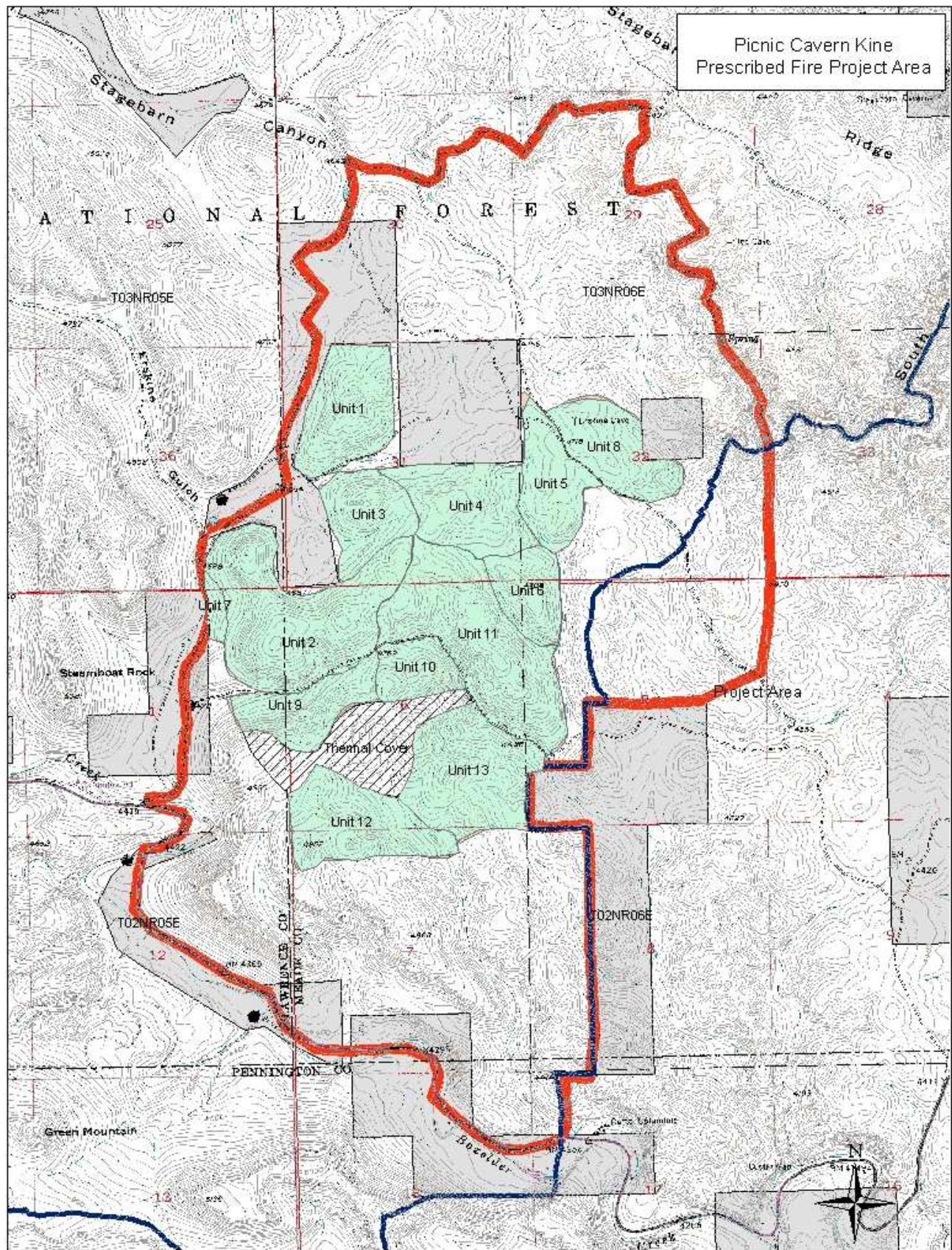
Picnic Cavern Kine Project Area

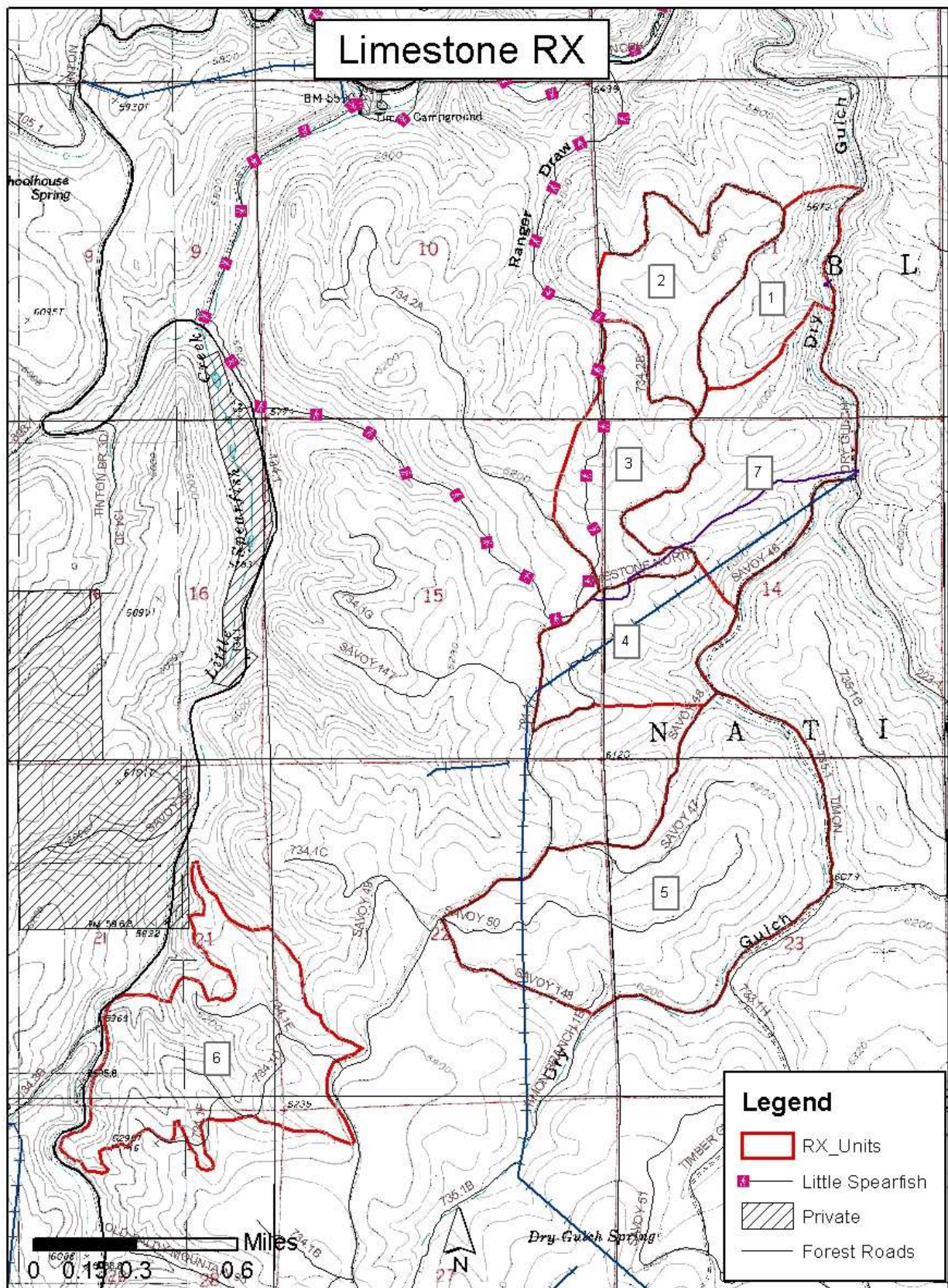




Limestone Prescribed Fire Project North Zone Fire Management

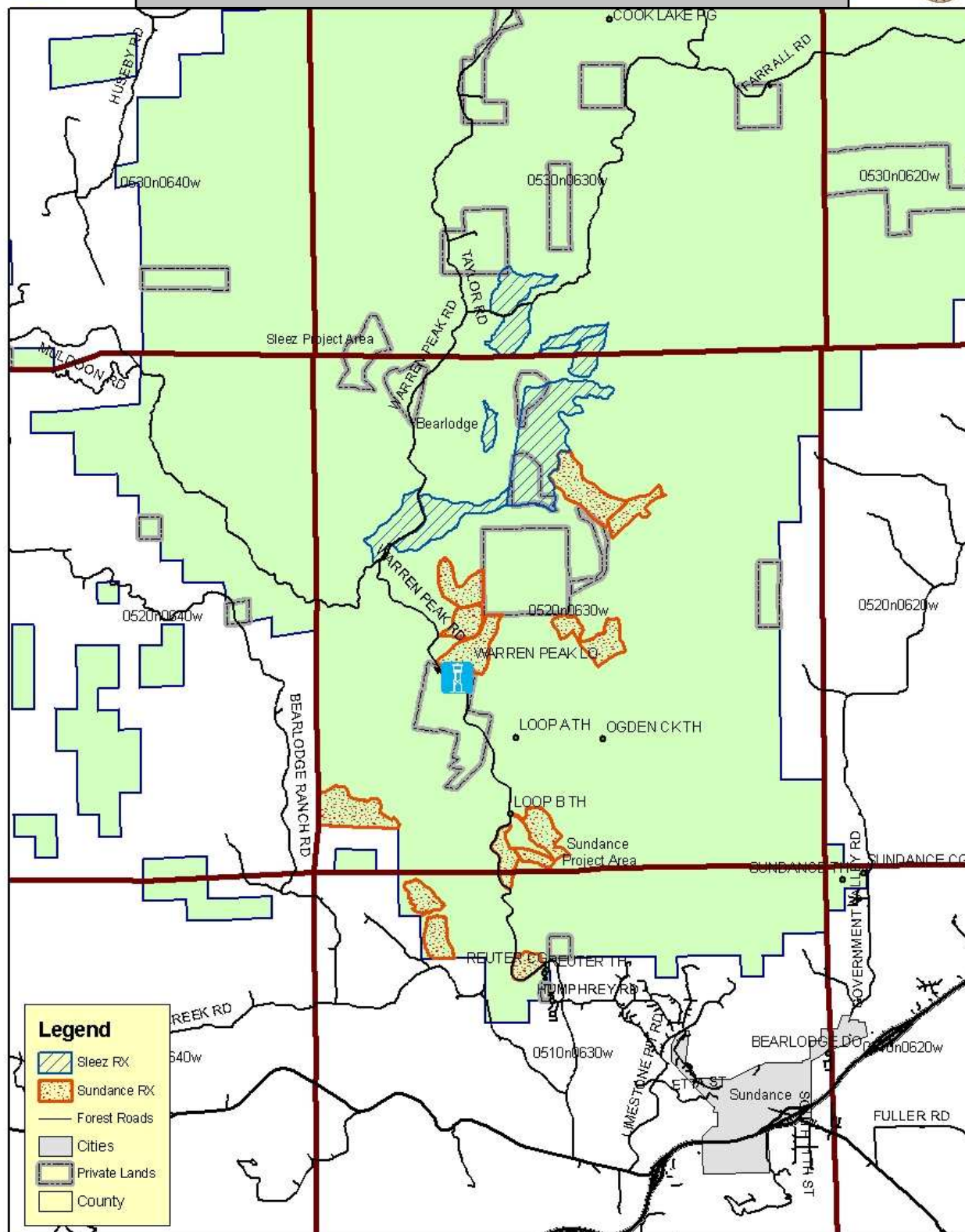






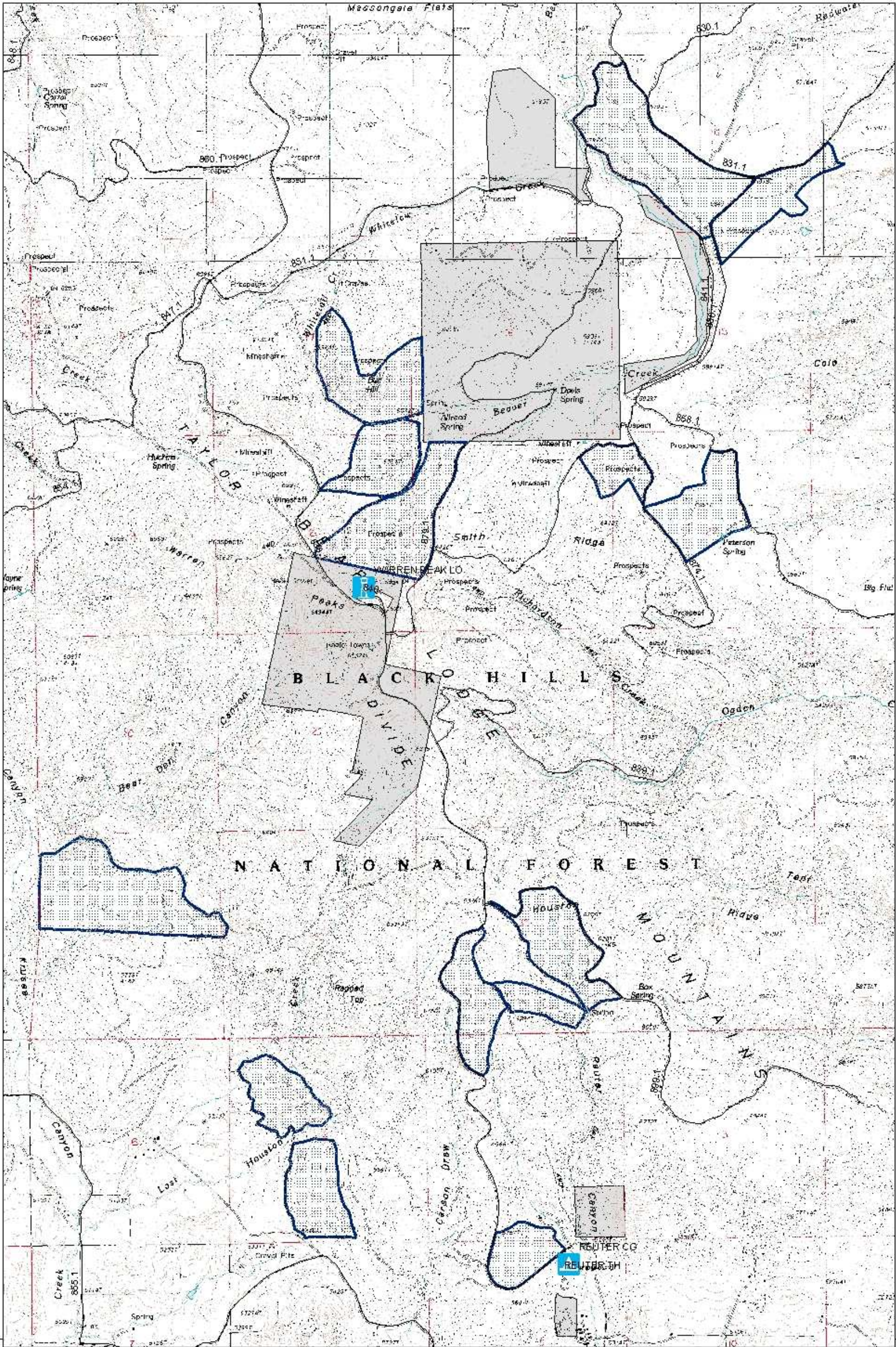


Sleez and Sundance Prescribed Fire Project North Zone Fire Management





Sundance Project Area
Broadcast Bum Units





Sleez Prescribed Fire Project
North Zone Fire Management
Bear Lodge Ranger District

